

SARASWATI MAHILA MAHAVIDHYALAYA, PALWAL

LESSON-PLAN

Class: B.Sc-Vth sem

Subject: Physics PPr-I

Solid state Physics

Semester: ODD/EVEN

Session: 2020-21

Lecture Number	Topic
lect-1	crystalline and glassy forms.
lect-2	liquid crystal
lect-3	crystal structure
lect-4	periodicity, lattice
lect-5	basis crystal translational vector and axes
lect-6	unit cell and primitive cell
lect-7	wigner seitz \rightarrow primitive cell
lect-8	Symmetry operations for a 2D crystal.
lect-9	Bravais lattice in 2D
lect-10	Bravais lattice in 3D
lect-11	crystal planes
lect-12	Miller indices
lect-13	interplanar spacing
lect-14	Crystal structure of zinc sulphide.
lect-15	NaCl and diamond structure.
lect-16	X-Ray diffraction.
lect-17	Bragg's law and experiment X-Ray diffraction.

Shilpa
Signature:

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Lecture Number	Topic
lect-17	diffraction & k-space.
lect-18	Reciprocal lattice and its physical significance.
lect-19	Reciprocal lattice vectors.
lect-20	Reciprocal lattice to a simple cubic lattice.
lect-21	b.c.c and f.c.c.
lect-22	specific heat of solid.
lect-23	Einstein's theory of specific heat.
lect-24	failure - criticism of Einstein theory.
lect-25	Debye model of specific heat of solid
lect-26	Debye model - approximation
lect-28	Successes of Debye model
lect-29	Numerical of Reciprocal Lattice.

S. Shukla